Work Order ID 10 June-24-13 1:56:45 PM	3491	*10:	3491*	Page 1
Item ID: D3910-1 Revision ID: Item Name: Crosstube Lu	ισ	Accept	*N90004010	O* Setup Start *NS1*
Start Date: 6/20/13 Required Date: 7/05/13 Reference:	Start Qty: 24.00 *7		Cust Item ID: Customer:	
Approvals: Process Pl	an: MUT Date: 12-12		Date:	Run Start *NR1* Stop *NR2*
Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID Tool # Plan Code	
Draw Nbr Re D3910 B	vision Nbr			
110 Outsource5 Outsource process - Machining	Outsource process - Machining HAAS CNC VERTICAL MACHINING #1 Memo Issue P/O to Metec:	0.00 0.00 343		CZ13/06/26 QT)
120 *120* Packaging	Receive & Inspect for Damage & Mat'l Certs Memo	0.00		13/1/26 (28

130

QC6- Inspect dimensions to drawing

0.00

130 QC Quality Control

Memo

0.00

DQA:			Date:										
QA Closed:			Date:			WORK ORDER NON-	-CC	ONFO	RMANCE / UPDATE	۱۸/	ork Order up	odate only	AEROSPACE
QA Closed.			Date.							VV	ork Order up	date only	
Work Orde	er:					DISPOSITION			AGAINS	T DE	PARTMENT	/PROCESS	
						Rework			Skid-tube Crosstub	e]	Water Jet	Engineering
Part N	۷o.					Scrap		ı	Machining Small Fa	b	Pro	d. Eng. Coor.	Quality
						Use-as-is		Thern	noforming Finishir	ıg	Rec/Stor	re/Packaging	Other
NCR I	No.					Suspected Unapproved			Large Fab Composit	:e]	Supplier	
Post		I	···-		Docc	rintian of work order undate		nitial	Action		Cian 9		
Root Cause		Date	Step	Qty	Desci	ription of work order update or non-conformance	ŀ	nitial iief Eng	Action Description		Sign & Date	Verification	QC Inspector
Design		Date	эсер	Qty		of non-comormance	Cii	nericing	Description		Date	verification	QC IIISPECTOR
Doc/Data													
Equip/Tooling													
Handling/Pre		1											
Material													
Operator									·				
Offset/Setup					•	•							
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Supplier									•				
Training													
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Unapproved													
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Landi	ng (Gear				General					_		
	L	Bending			-	Bend		Folio/P	rogram		Outside Dim	ensions	Pressure/Forced
		Centre No	ot Concer	ntric	<u> </u>	BOM/Route		Grain		L	Over/Under	tolerance	Set-up
	<u> </u>	Cracks				Broken/Damage/Defect		Hardwa	re	L	Part Incorred	ct	Temperature/Cure
	<u> </u>	Crimp/Kir	nk/Ripple	/Wave	<u> </u>	Burrs		Inspecti	on Incomplete/Unqualified		Part Lost/Mi	ssing	Weld
	\vdash	Cuffs			<u> </u>	Contamination		1	ions Incomplete/Unclear	L	Part Moved		Wrong Stock Pulled
	<u> </u>	Crushing			<u> </u>	Countersink	_	1 -	ned/off center		Positioned V		-
		Heat Trea			<u> </u>	Cut Too Short	\vdash	Mislabe		L	Power Loss/	Surge	Other
	<u> </u>	Inspection		Tube	<u> </u>	Drawing	<u> </u>	Misread	1				
		Marks/Ch			<u> </u>	Drill Holes	<u> </u>	Off-set					
	_	Turning S	-		<u> </u>	Finish	\vdash	1	Calibration				
		Wave/Tw	ist in Tub	e		Fit/Function	L	Out of S	Sequence				

103491

Page 2

June-24-13 1:56:45 PM

Required Date: 7/05/13

91. 1	Rev	/is	ion	ID:
morp	Itei	n I	Nar	ne:
	4		ъ.	

Item ID:

D3910-1

Crosstube Lug

Accept

N900040100

Setup Start

Start Date:

6/20/13

Start Oty: 24.00

Rea'd Otv: 24.00

24 *24*

Cust Item ID:

Customer:

Réference:

	: _
	pprovals:
🕰	DDI OVAIS.
- 4	z z

Process	Dlan.			
rrocess	гіан.	 	-	-

Date:

Tooling:

Date:

Tool ID

Run

OC:

Operation

Description

Date: SPC (Y/N): Date:

Sequence ID/ Work Center ID 140

140

HandFinish

Chemical Conversion Coat per OSI005 4.1

Memo

Set Up/ Run Hours 0.00

0.00

Tool # Plan Code

Accept Qty

Reject Reject Qty Number

Stop

Insp. Stamp

24 MB13.724

Hand Finishing

150

150 °oc

Quality Control

OC3- Inspect Part Finish

Memo

0.00

0.00

24xym-113/07/29

160

160 Powdercoat

Powder Coating

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

FINISH TIME:

0.00

Memo
START TIME:
OVEN TEMPERATURE:
FINISH TIME:

24xym/ 13/07/36

DQA:			Date:										
QA Closed:			Date:			WORK ORDER NON-	-CC	ONFO	RMANCE / U		Vork Order up	ndate only	AEROSPACE
Q. 1 0.0300.			oute.		-	DISDOSITION					······································		1
Work Orde	er:					DISPOSITION				AGAINST D	EPARTMENT	/PROCESS	
	-					Rework			Skid-tube	Crosstube		Water Jet	Engineering
Part N	No.					Scrap		ı	Machining	Small Fab	Pro	d. Eng. Coor.	Quality
						Use-as-is		Thern	noforming	Finishing	Rec/Sto	re/Packaging	Other
NCR I	Νο. ِ	n.a. s. :				Suspected Unapproved			Large Fab	Composite		Supplier	
Root	-				Desc	I ription of work order update	<u> </u>	nitial	Act	tion	Sign &		
Cause		Date	Step	Qty		or non-conformance		ief Eng		ription	Date	Verification	QC Inspector
Design													
Doc/Data													
Equip/Tooling						•	ŀ						
Handling/Pre													
Material													
Operator													
Offset/Setup													
Process													
Supplier			:										
Training													
Transport	Ш												
Unapproved													
							FAI	ULT CAT	EGORY				
Landi	ng C	ear				General		_					
	Ш	Bending				Bend		Folio/P	rogram		Outside Dim	ensions	Pressure/Forced
	Ш	Centre No	ot Concer	ntric		BOM/Route		Grain			Over/Under	tolerance	Set-up
		Cracks				Broken/Damage/Defect	L	Hardwa	re		Part Incorre	ct	Temperature/Cure
	Ш	Crimp/Kir	nk/Ripple,	/Wave		Burrs	L	Inspecti	on Incomplete/Ur	nqualified	Part Lost/Mi	ssing	Weld
		Cuffs				Contamination		Instruct	ions Incomplete/l	Jnclear	Part Moved		Wrong Stock Pulled
		Crushing				Countersink		Misalig	ned/off center		Positioned V	Vrong	
	Ш	Heat Trea	it			Cut Too Short		Mislabe	led		Power Loss/	Surge	Other
	Ш	Inspection	n Strip in	Tube		Drawing		Misread	1				
		Marks/Ch	atter			Drill Holes		Off-set					
		Turning S	equence			Finish		Out of (Calibration				
		Wave/Tw	ist in Tub	e		Fit/Function		Out of 9	Sequence				

H:/FORMS/Quality Assurance\approved QA/NCRWO RevH

Work Ord June-24-13 1:5		3491		*103	3491*				Page 3
Item ID: Revision ID: Item Name: Start Date: Required Date Reference:	D3910-1 Crosstube Lug 6/20/13 : 7/05/13	Start Qty: 24.00 Req'd Qty: 24.00	*24* *24*	Accept	*N900 Cust Item 1 Customer:			setup Sta	*NS2*
Approvals:	Process Pla	ın:	Date:	Tooling:	D	ate:	F	tun Sta	
	QC:		Date:	SPC (Y/N):	D	ate:		Sto	*NR2*
Sequence ID/ Work Center I 170 *170* QC Quality Control 180 *180* Packaging Packaging	D	Operation Description QC3- Inspect Part Finish Memo Identify as per dwg & Sto	ck Location: Sナリらり	Set Up/ Run Hours 0.00 0.00	Tool JD	Tool # Pla			Reject Insp. Number Stamp 13/02/36
*190 *1 QO* QC Quality Control		QC21- Final Inspection - Memo	Work Order Release	0.00			<u>/M</u>	<u>رح</u> ۱	13-08-01 12-08-07

DQA:			Date:										
						WORK ORDER NON-	-CC	ONFO	RMANCE / UP			–	AEROSPACE
QA Closed:			Date:							<u>_</u>	ork Order up	odate only	
Work Orde	er:					DISPOSITION				AGAINST D	EPARTMENT,	/PROCESS	
	•					Rework	1		Skid-tube	Crosstube	7	Water Jet	Engineering
Part I	No.					Scrap			Machining	Small Fab	Pro	d. Eng. Coor.	Quality
	•				_	Use-as-is			noforming	Finishing		re/Packaging	Other
NCR I	No.					Suspected Unapproved			Large Fab	Composite]	Supplier	
Root					Desci	ription of work order update	1	nitial	Acti	on	Sign &		
Cause	_	Date	Step	Qty		or non-conformance	Ch	ief Eng	Descri	ption	Date	Verification	QC Inspector
Design	H												
Doc/Data	-												
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Handling/Pre	\vdash												
Material	Н												
Operator	$\vdash\vdash$												
Offset/Setup Process	Н												
Supplier	Н												
Training													
Transport	Н					-							
Unapproved	Н												
<u>```.</u>	اا						FAI	ULT CAT	TEGORY			L	
Landi	ng G	Gear				General							
		Bending				Bend		Folio/P	Program	Г	Outside Dim	ensions [Pressure/Forced
		Centre No	ot Concer	ntric		BOM/Route		Grain	J		Over/Under		Set-up
		Cracks				Broken/Damage/Defect		 Hardwa	ire		Part Incorred	 	Temperature/Cure
		Crimp/Kir	nk/Ripple,	/Wave		Burrs		Inspecti	ion Incomplete/Un	qualified	Part Lost/Mi	ssing	Weld
		Cuffs				Contamination		Instruct	ions Incomplete/U	nclear	Part Moved		Wrong Stock Pulled
		Crushing				Countersink		Misalig	ned/off center		Positioned V	Vrong	
		Heat Trea	it			Cut Too Short		Mislabe	eled		Power Loss/	Surge	Other
	-	Inspectio	•	Tube		Drawing		Misread	d	_			
		Marks/Ch				Drill Holes		Off-set					
	-	Turning S			<u> </u>	Finish		Out of (Calibration				
		Wave/Tw	ist in Tub	e		Fit/Function		Out of 9	Sequence				

June-24-13 1:56:45 PM

Work Order ID:

103491

Parent Item:

D3910-1

Parent Item Name:

Crosstube Lug

Start Date: 6/20/13

Required Date: 7/05/13

Start Qty: 24.00

Required Qty: 24.00

Comments:

IPP REV:A NEW ISSUE 09-11-25 JLM VERIFIED BY:DD 03-23 JLM VERIFIED BY:DD

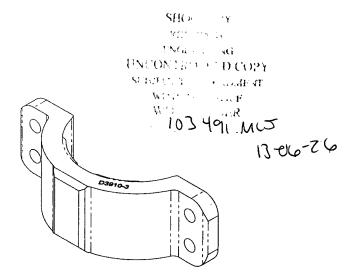
IPP REV:B AS PER REV B 10-

	03-23 JLM VERI	FIED BY:DD											· · · · · · · · · · · · · · · · · · ·
Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D3910-SP Crosstube Lug	A /	Purchased	No				Each	0.0000		24	Puls	3/1/2	(2 4
D2423 Lug Extrusion		Manufactured	No				f	491.7630		3.284210	4cx13	s/cala	26
				Location		Loc Qty	<u>L</u>	oc Code					
e e	*			MAT006		383							
				4372	22	161.5							
				8795	53	221.5							•
· ·				Metec		108.763							
				9355	51	108.763				3.29			

DQA:		_ Date:			WORK ORDER NON		2150		_			
QA Closed:		Date:			WORK ORDER NON-	-C(ONFOI	RMANCE / UPDATI		ork Order up	odate only	AEROSPACE
					DISPOSITION			AGA		PARTMENT		
Work Orde	er:				_	,				· · · · · · · · · · · · · · · · · · ·	· _	
					Rework			—	stube		Water Jet	Engineering
Part N	No				Scrap			→	II Fab		d. Eng. Coor.	Quality
NICD N	u.				Use-as-is		Thern		ishing 	Rec/Stor	re/Packaging	Other
NCR N	NO				Suspected Unapproved]		Large Fab Comp	posite		Supplier] [
Root				Desci	ription of work order update		Initial	Action		Sign &		
Cause	Date	Step	Qty		or non-conformance	Ch	nief Eng	Description		Date	Verification	QC Inspector
Design												
Doc/Data												
Equip/Tooling												
Handling/Pre												
Material												
Operator										:		
Offset/Setup												
Process												
Supplier												
Training												
Transport												
Unapproved												
				-		FAI	ULT CAT	TEGORY				
Landi	ng Gear				General		,			•		_
	Bending				Bend		Folio/P	rogram		Outside Dim	ensions	Pressure/Forced
	Centre N	lot Concer	ntric		BOM/Route		Grain	•		Over/Under	tolerance	Set-up
	Cracks				Broken/Damage/Defect		Hardwa	re		Part Incorred	t	Temperature/Cure
ļ		ink/Ripple	/Wave		Burrs		Inspecti	on Incomplete/Unqualifie	d	Part Lost/Mi	ssing	Weld
	Cuffs				Contamination		4	ions Incomplete/Unclear		Part Moved		Wrong Stock Pulled
	Crushing	•			Countersink		1 7	ned/off center		Positioned W	/rong	_
	Heat Tre			\perp	Cut Too Short		Mislabe	led		Power Loss/S	Surge	Other
	⊢	on Strip in	Tube		Drawing		Misread	1				
	Marks/C				Drill Holes		Off-set					
		Sequence			Finish		Out of (Calibration				
	Wave/T	wist in Tub	e e	1	Fit/Function		Out of 9	Sequence				

D3810-1

D3910-1 X-TUBE LUG



D3910-3 X-TUBE LUG

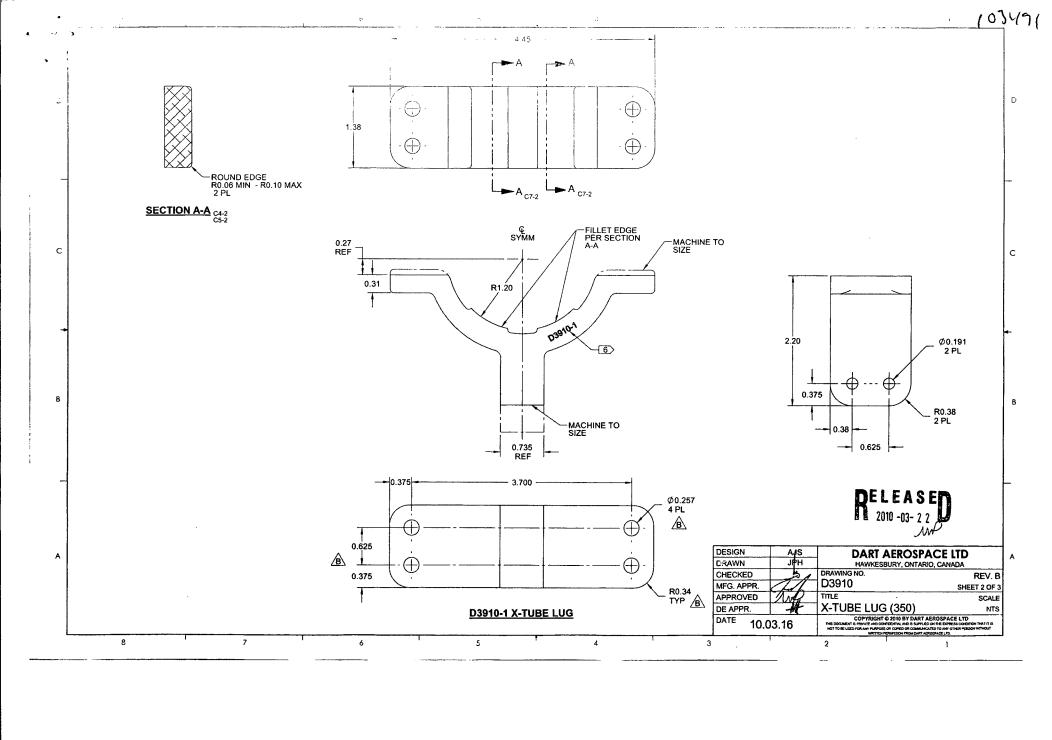
RELEASED 2010 -03- 2 2

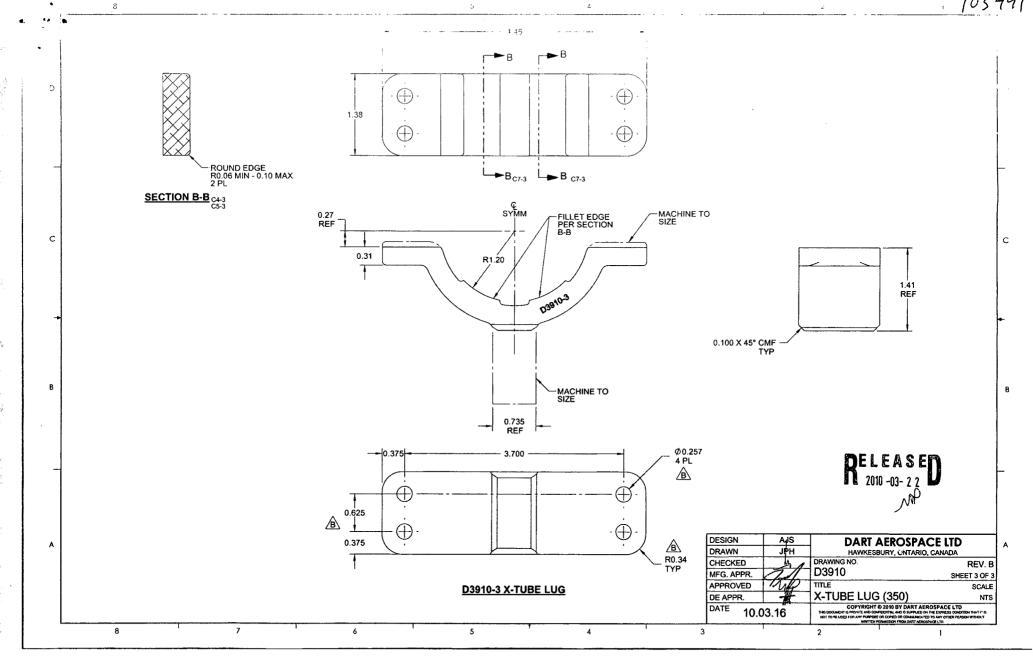
NOTES:
1) MATERIAL: MAKE FROM D2423 EXTRUSION
2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: ENGRAVE PART NUMBER TO A DEPTH OF 0.010 ± 0.005 IN THIS LOCATION WITH A TOOL TIP RADIUS
OF 0.015 ± 0.005
7) WEIGHT -1: 0.32 (bs
-3: 0.25 lbs

В	Ø0.257 FILLET REASO	HOLES: 4 WAS R0.5 N: SEE TR	PL W 0 (A3-; -D350	AS 2 PL (A3-2) & (A3-3); R0.34 2) & (A3-3). -607-2	JPH	10.03.16
Α	NEW IS				JPH	10.03.04
REV.				DESCRIPTION	BY	DATE
DESIG	· · · · · · · · · · · · · · · · · · ·	AJS	3	DART AEROSI	ACE I	TD
DRAW	V	JPI	1	HAWKESSURY, ONTA		
CHECK	ED	3	1	DRAWING NO.		REV. B
MFG. A	PPR.	- Lot	7	D3910		SHEET 1 OF 3
APPRO	VED	Not 1		TITLE		SCALE
DE APP	PR.	-#	•	X-TUBE LUG (350)		NTS
DATE	10.0	3.16		COPYRIGHT © 2010 BY DAR THIS DOCUMENT IS PROVIDE AND COMPENSTAL AND IS SUP- NOT TO BE USED FOR ANY PURPOSE OF COPED OR COMM	MICATED TO MAY OTH	CONDITION THAT IT IS

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С





20 Terry Fox Drive Vankleek Hill, Ontario K0B 1R0, Canada Tel: (613) 678-3957 Fax: (613) 678-3956

Delivery Slip No.:

19417

Date:

Jul 25, 2013

Page:

Sold to:	Ship to:
Dart Aerospace Ltd. Att. Linda Lacelle 1270 Aberdeen Street Hawkesbury, Ontario K6A 1K7	Dart Aerospace Ltd. Att. Linda Lacelle 1270 Aberdeen Street Hawkesbury, Ontario K6A 1K7
Order No.: 20343	Sold By: Dewar, Eric
Shipped By: your truck	Ship Date: Jul 25, 2013

Description	Unit	Ordered quantity	Shipped.	Éackorder ∰quantity
D3910-1 Crosstube Lug as per D3910 REV. B B103491	Each	24	24	
D3394-3 Lug as per DWG D3394 REV.B B103484	Each	60		
The delivered goods must be inspected upon receipt to confirm compliance. Should there be discrepancies please notify METEC within 30 days of delivery. The goods are otherwise deemed accepted.			•	
			_	
Received by	Thank you for your order!			

20 Terry Fox Drive, Vankleek Hill, Ontario K0B 1R0
Tel. (613) 678-3957 & (613) 678-2782 Fax (613) 678-3956 metec@metec.ca

CERTIFICATE OF CONFORMITY

SOLD TO:

SHIPPED TO:

Dart Aerospace Ltd. 1270 Aberdeen Street Hawkesbury, Ont.

same

K6A 1K7

QUANTITY

PART NUMBER

PART NAME

P.O. NUMBER

24

D3910-1

Lug

PO 20343

MATERIAL: supplied by DART B87953

We hereby certify that the above parts were made in conformance with applicable drawings.

METEC Metal Technology Inc.

Jan Norris

Vankleek Hill, July 25, 2013